

2009

Grand Rapids Water System

Water Quality Report

Why Do You Get This Report?

The Environmental Protection Agency (EPA) requires the City of Grand Rapids, and all other water suppliers in the US, to report annually to all of its customers the specific details about testing for a number of contaminants in our water as part of the Safe Drinking Water Act of 1996. In order to reach all of our customers, this Water Quality Report must be mailed to you to meet this requirement. The Grand Rapids Water System takes advantage of this requirement to provide additional information on various water topics to our customers.



Please Pardon Our Dust

In April, we started a Customer Information System project that will affect every Grand Rapids Water System Customer. The goals of the project are to improve customer service; reduce operating costs and increase efficiency.

Look forward to more options and enhancements!

- Web-based information and payment options
- Business customer multiple property consolidation bills
- Enhanced information billing format
- Automated telephone reminders

Because improved customer service is our goal, our most experienced personnel will work diligently through mid-2011 to ensure a smooth transition for your enhanced services. While the project won't literally create dust, it may cause service delays. All efforts will be made to minimize inconvenience to you, our valued customers.

Future updates on the system will be available at www.grcity.us/water. Please visit the website to submit your comments and suggestions.



How Did We Do?

The Grand Rapids Water System is proud to present our annual Water Quality Report. This report provides important information about your drinking water. We have continued to meet the challenge of providing safe, quality water which meets or exceeds the requirements set forth by the EPA and the Michigan Department of Natural Resources and Environment (MDNRE). The testing specifics are located in the table inside of this report. Information in the table provides a summary of sampling and testing results from January 1 to December 31, 2009. The Grand Rapids Water System monitors many of these substances more frequently than required, and as a consequence, this data is also included in the table. Our constant goal is to provide you with a safe and dependable supply of drinking water.

We serve residential and commercial customers in the City of Grand Rapids as well as our customer communities of Ada Township, Cascade Township, City of East Grand Rapids, Grand Rapids Township, City of Kentwood, Tallmadge Township, City of Walker and portions of Ottawa County.

Water Quality Problem? What to Do.....

The Grand Rapids Water System is committed to providing you with high quality water. We also understand that occasionally a concern may arise. Maybe you feel that water pressure is lower than normal. Possibly your water is cloudy or rusty, or may have an unusual odor.

This change in your water quality could be caused by various reasons. Construction in the area, in-house water filtration, recent plumbing work done in your home and seasonal weather related changes are just a few possibilities.

Whatever the reason, we want to address those concerns. Please call our Business Office at 456-3200 and discuss the issue with one of our Customer Service Representatives. They will ask you a few questions to adequately help assess your problem, and one of our staff will contact you to follow up, if necessary.



Grand Rapids is Leader

On October 20, 2009, Grand Rapids took the lead in Michigan in eliminating the use of bottled water. A



resolution was approved and the City of Grand Rapids announced its intention to no longer purchase bottled water for use in City facilities or events. The City Manager could make an exception for public health, safety and welfare reasons for specific occasions. A group of local community leaders, supported by the Food and Water Watch's national campaign, assisted in

promoting the efforts to reduce the environmental impacts of bottled water. While bottled water is popular, it is generally no cleaner, safer and healthier than tap water. Additionally, the cost of water in Grand Rapids is less than one cent per gallon while bottled water is approximately 2,400 times more expensive than tap water. It is hoped through the conscious efforts of the City of Grand Rapids and other community leaders to "Take Back the Tap" will encourage this community and others across the state to become good stewards of the environment.

About Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants such as viruses and bacteria which may have come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

Inorganic contaminants such as salts and metals which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming; **Pesticides and herbicides** which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; **Organic chemical contaminants** including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems; and **Radioactive contaminants** can be naturally-occurring or be the result of oil and gas production and mining activities.

Lead and Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Grand Rapids Water System is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1(800) 426-4791 or their website at <http://www.epa.gov/safewater/lead>. The Grand Rapids Water System implemented a corrosion control program in 1994 to reduce the amount of lead possibly leaching from household plumbing. Prior to the corrosion control program, 37% of the homes tested had lead levels above EPA's lead limit. Since 1994, lead levels have decreased, and in our most recent testing, only one of the 50 homes tested had a lead level above the action limit.

2009 Water Quality Data

Regulated at the Treatment Plant

Substance	Units	Range of Detections	Highest Level Detected	MCL	MCLG	Violations	Likely Sources
Barium	ppm	0.019 - 0.022	0.022	2	2	No	Erosion of natural deposits
Chromium	ppb	n.d. - 1.6	1.6	100	100	No	Erosion of natural deposits
Fluoride	ppm	0.13 - 0.95	0.95	4	4	No	Water additive which promotes strong teeth
Nitrate	ppm	n.d. - 0.5	0.5	10	10	No	Erosion of natural deposits
Turbidity*	NTU	0.013 - 0.168	0.168	TT	n/a	No	Soil runoff

*Our treatment for turbidity was in 100% compliance of the regulatory limit. We are allowed a minimum of 95% compliance.

Regulated in the Distribution System

Substance	Units	Range of Detections	Maximum Running Annual Average	MCL or MRDL	MCLG or MRDLG	Violations	Likely Sources
Chlorine Residual	ppm	0.02 - 1.42	0.9	4	4	No	Water additive used to control microbes
Haloacetic Acids	ppb	14.8 - 60.4	38.9	60	n/a	No	By-product of drinking water chlorination
Total Trihalomethanes	ppb	25.4 - 50.9	31.8	80	n/a	No	By-product of drinking water chlorination

Regulated at the Customer's Tap

Substance	Units	Range of Detections	90th Percentile	AL	MCLG	# of Samples exceeding AL	Likely Sources
Copper (tested in 2007)	ppm	0.004 - 0.155	0.058	1.3	1.3	0	Corrosion of household plumbing system
Lead (tested in 2007)	ppb	n.d. - 17	4	15	0	1	Corrosion of household plumbing system

Unregulated Contaminants

Substance	Units	Range of Detections	Average	Likely Sources
Sodium	ppm	8 - 11	9.5	Mineral and nutrient

Cryptosporidium and Giardia

Cryptosporidium and Giardia are microscopic organisms that are commonly found in surface water throughout the U.S. Historical sampling of the Lake Michigan Filtration Plant source water indicates it is a low risk for contamination from these organisms. The current test methods are not capable of determining if detected organisms are alive and capable of causing illness or death.

Source Water - Two source water samples were positive for Cryptosporidium during this reporting period and the levels detected in these samples were all low. One of these samples was also positive for Giardia, and the results were also low.

Treated Tap Water - There were no Cryptosporidium or Giardia detected in any treated tap water samples.

Note: The data table contains the highest annual test results for all required and voluntary monitoring of regulated substances. The Grand Rapids Water System monitors many regulated substances more frequently than required, and as a consequence, these results are included in the table above.

Water Quality Table Key and Definitions

MCL - Maximum Contaminant Level: This is the highest level of a substance that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a substance in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.

MRDL - Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm - Parts per Million: You win a one million-dollar lottery. You give a friend one dollar. That's 1 ppm.

ppb - Parts per Billion: your rich uncle passes away and leaves you \$10 million. However, in counting your inheritance, you discover that 1 cent is missing. That's 1 ppb.

Turbidity - A measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

NTU - Nephelometric Turbidity Unit: Measurements of the minute suspended particles. Used to judge water clarity.

TT - Treatment Technique: A required process intended to reduce the level of a substance in drinking water.

AL - Action Level: The amount of a substance when exceeded requires a treatment or other response by a water system.

n/a - Not applicable

n.d. - not detected

Do I need to take special precautions?

The EPA sets legal limits and regulates the amount of contaminants allowed in drinking water provided by public water systems. Sources of drinking water worldwide (both tap and bottled) may reasonably be expected to contain at least small amounts of some contaminants. Though contaminants are present, it does not necessarily indicate that the water poses a health risk. We treat our water according to EPA regulations.

EPA's health-based standards for drinking water are generally safe, but some people may be more vulnerable to contaminants in drinking water than the general population. Some infants, children or elderly, individuals who have undergone organ transplants, people with HIV/AIDS or persons receiving chemotherapy can be at risk for infections. These people should seek advice from their health care providers. More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water Hotline at 1(800)426-4791 or their website at <http://www.epa.gov/safewater/dwhealth.html>.



City of Grand Rapids Water System
1101 Monroe Ave. NW
Grand Rapids, MI 49503

**ALL USERS SHOULD RECEIVE A COPY
OF THIS REPORT. PLEASE CALL 456-3200
FOR ADDITIONAL COPIES.**

More Information:

If you have questions regarding your bill, leaks or other water service related issues, please call our Customer Service Office at 456-3200, during normal business hours Monday through Friday.

The Grand Rapids City Commission sets policies for the Water System. For meeting dates and times, please call 456-3168.

This report is available on the internet at:
<http://www.grcity.us>

En español: Este informe contiene información muy importante sobre el agua potable que le provee a Ud. La ciudad de Grand Rapids. Tradúzcalo o hable con alguien que lo entienda bien.



Source Water Assessment

Lake Michigan is the sole source of water treated for the Grand Rapids Water System. This is considered a surface water source. The MDEQ completed a Source Water Assessment for the City of Grand Rapids water supply in 2003. This report found that our water supply has a moderately high susceptibility to contaminants. Environment contamination is not likely to occur when potential contaminants are used and managed properly. The Grand Rapids Water Treatment Plant routinely and continuously monitors the water for a variety of chemicals to assure safe drinking water. Industrial chemicals have not been detected in our source or treated water. The Grand Rapids Water System continues to be involved in and supports watershed protection efforts. If you wish information about the Source Water Assessment or have questions concerning the water quality testing results in this report contact:

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Patty Chapman, Chemist II (616) 456-3700 or pchapman@grcity.us